C
D252m
1912/13

FOUNDED

1769

DARTMOUTH COLLEGE BULLETIN

NOVEMBER, 1912

NEW SERIES VOL. I, NO. 5

THE MEDICAL SCHOOL

Published by the College
HANOVER, N. H.

CATALOGUE OF

DARTMOUTH MEDICAL SCHOOL

FOR THE ONE HUNDRED AND SIXTEENTH
ANNUAL SESSION

1912-1913

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

CALENDAR

1912

August 6 . . . . . Third and Fourth year courses began.
September 19 . . . . . First and Second year courses began.
November 28 . . . . . Thanksgiving Day; a holiday.

Recess from December 20, 10 A.M., *to January* 3, 10 A.M.

1913

January 20 to February 1 . . . First semester examinations for First and Second year classes.
March 11 . . . . . Town election; a holiday.
April 11 . . . . . Third year courses end.

Recess for First and Second year classes from April 3, 10 A.M., *to April* 17, 10 A.M.

April 25 . . . . . Graduating exercises.
June 5–19 . . . . . Second semester examinations, First and Second year classes.
August 5 . . . . . Third and Fourth year courses begin.
September 18 . . . . . First and Second year courses begin.

MEDICAL SCHOOL FACULTY

ERNEST FOX NICHOLS, D.Sc., LL.D., PRESIDENT.

JOHN MARTIN GILE, A.M., M.D., DEAN, *and Professor of Clinical Surgery.* 1 Maynard St.

GEORGE SELLERS GRAHAM, B.L., M.D., SECRETARY, *and Assistant Professor of Pathology and Bacteriology.* The Graduate Club.

CHARLES BEYLARD GUERARD DE NANCRÈDE, M.D., LL.D., *Professor of Surgery and Clinical Surgery.* Ann Arbor, Mich.

EDWIN JULIUS BARTLETT, A.M., M.D., *Professor of Chemistry (Academic department).* 8 W. Wheelock St.

TILGHMAN MINNOUR BALLIET, A.M., M.D., *Professor of Therapeutics.* 3709 Powelton Ave., Philadelphia.

WILLIAM PATTEN, PH.D., *Professor of Biology (Zoölogy). (Academic department).* 15 Webster Ave.

GILMAN DUBOIS FROST, A.M., M.D., *Professor of Clinical Medicine.* 13 E. Wheelock St.

COLIN CAMPBELL STEWART, PH.D., *Brown Professor of Physiology.* 4 Webster Ave.

HOWARD NELSON KINGSFORD, A.M., M.D., *Professor of Pathology and Bacteriology.* 6 Clement Road.

FREDERIC POMEROY LORD, A.B., M.D., *Professor of Anatomy.* 21 Rope Ferry Road.

GRANVILLE PRIEST CONN., A.M., M.D., *Professor of Hygiene, Emeritus.* Concord, N. H.

EDWARD COWLES, M.D., LL.D., *Professor of Mental Diseases.* 419 Boylston St., Boston.

GEORGE ADAMS LELAND, A.M., M.D., *Professor of Otolaryngology.*
354 Commonwealth Ave., Boston.

JOHN OSBORN POLAK, M.S., M.D., *Professor of Obstetrics.*
287 Clinton Ave., Brooklyn, N.Y.

HARVEY PARKER TOWLE, A.B., M.D., *Professor of Dermatology.*
453 Marlboro St., Boston.

JAMES RIDDLE GOFFE, M.D., *Professor of Gynecology.*
616 Madison Ave., New York City.

WILLIAM EDWIN BUTLER, Jur.D., M.D., *Professor of Medical Jurisprudence.* 113 Halsey St., Brooklyn, N.Y.

ELLIOTT GRAY BRACKETT, M.D., *Professor of Orthopedic Surgery.*
166 Newbury St., Boston.

ALEXANDER QUACKENBOSS, A.M., M.D., *Professor of Ophthalmology.* 143 Newbury St., Boston.

FRANKLIN WARREN WHITE, B.S., M.D., *Professor of Medicine and Clinical Medicine.* 322 Marlboro St., Boston.

PERCY BARTLETT, A.B., M.D., *Instructor in Anatomy.*
35 College St.

ELMER HOWARD CARLETON, A.B., M.D., *Clinical Instructor in Otolaryngology and Ophthalmology.* 4 Occom Ridge.

JOHN HIRAM GEROULD, Ph.D., *Assistant Professor of Biology* (*Zoölogy*). (*Academic department*). 10 School St.

CHARLES ERNEST BOLSER, Ph.D., *Assistant Professor of Chemistry* (*Academic department*). 15 E. Wheelock St.

LELAND GRIGGS, Ph.D., *Instructor in Biology* (*Academic department*). 11 Pleasant St.

GENERAL ANNOUNCEMENT

The Dartmouth Medical School, the fourth to be established in the United States, owed its foundation to the efforts of Dr. Nathan Smith, one of the best known physicians and surgeons of his day, who gave the first course of lectures in medicine in Dartmouth College during the year 1797. In June, 1798, two men were granted the degree of M.B. and classes have been graduated every year since that date. The Doctorate in Medicine was given in 1812.

Aside from the assistance of Dr. Lyman Spalding in 1798 and 1799, Dr. Smith carried on the whole work of the school until 1810. In that year Anatomy and Surgery were constituted a special department and this subdivision of the teaching work was followed by the gradual establishment of such other chairs as the changing conditions in medical education demanded. The required course of study, at first of two years' duration, was soon lengthened to three years and more recently to four years. In 1902 the Trustees of Dartmouth College assumed entire financial control of the school, thus relieving it of the semi-independent position which it had previously held, and making it an integral part of the college as one of its graduate schools. In 1908 the Nathan Smith Laboratory was erected by funds contributed by alumni and friends of the school. The same fund made possible extensive alterations in the old medical building, erected in 1811 upon land deeded for this purpose to the State of New Hampshire by Dr. Smith. These alterations have provided excellent general and special working laboratories for the Department of Physiology. The Nathan Smith Laboratory affords admirable facilities for the work in Histology, Pathology, and Bacteriology. Biology, Comparative Anatomy, Embryology, and Chemistry are provided for in the laboratories of Dartmouth College. The Mary Hitchcock Hospital affords ample material for clinical instruction in the courses of the last two, or "clinical" years.

It is the aim of the school to impart to the student a thorough training in the theory and practice of medicine on both the laboratory and the clinical sides, an aim which is furthered by the small size of its classes and the consequent close personal association between teacher and student. To assure to the student the broad foundation necessary for acquiring a logical and thoroughly useful comprehension of modern medicine the school established in 1910 an entrance requirement of two years of collegiate work in Biology, Chemistry, Physics and the languages.

EQUIPMENT

The original Medical School building provides accommodations for the Departments of Anatomy and Physiology as well as for a pathological museum. The south end of the building is occupied by the Department of Anatomy. Its basement extends south from the main building, giving a well-lighted dissecting room with glass roof, and, in addition, each dissecting table stands under a strong electric light. The room has been newly equipped with lavatories, individual lockers, and an air pressure system for use in dissections. A special room is set apart for preparing the material and for storing it in a tightly closed vault where it can be kept in perfect condition. Cadavers for use in demonstration lectures may be carried to the room above by elevator. The first floor has a large lecture room and a smaller recitation room, the latter entirely remodelled during the past summer. On the second floor is a study and recitation room, where is kept a growing collection of dissected wet specimens, illustrative of the viscera, central nervous system, and the general structure of the body, as well as special dissections of the bones and joints, etc., these to be handled and studied by the student. The third floor is occupied by an office and a private laboratory for the use of the department.

The Department of Physiology occupies the entire three floors of the newly reconstructed north end of the building. Upon the ground floor there is a chemical room and a laboratory for special work by advanced students; on the second floor is a large private working laboratory, a dark room, toilet room, and a workshop; the entire third floor is occupied by the students' laboratory, which is well lighted from three sides. The equipment of the laboratory for the students' course is that manufactured by the Harvard Apparatus Company, but in addition to the student's sets there are many pieces of the more expensive demonstration apparatus and models, largely imported, which are equally available for the laboratory work of small classes.

The Nathan Smith Laboratory is a modern brick building of two and one-half stories. On the first floor there is a large lecture room and a library. In the basement there is an animal room, a toilet room and a students' reading room. The upper floor contains a students' laboratory with gas and running water and with individual lockers for microscopes and slide boxes. The laboratory is abundantly lighted from three entire sides. This floor contains also the laboratory of the New Hampshire State Board of Health, and four smaller working lab-

oratories. All the rooms are well lighted by closely placed windows and there is a full equipment of microscopes and other apparatus for general and special work in Histology, Pathology, and Bacteriology. The specimens coming to the State Laboratory for examination provide a great variety of pathological and bacteriological material for class use.

The Mary Hitchcock Memorial Hospital, a cottage hospital of forty beds, and a model of construction, furnishes clinical material for the use of the third and fourth-year classes with the opportunity for learning the methods of the most advanced hospital work. In operating rooms recently reëquipped with modern appointments the student has a close view of a large number of operations in general surgery and gynecology and of special operations upon the eye, ear, throat, and nose. He is able to follow these cases and note the after treatment and results. The clinics are carefully used to illustrate the didactic teaching.

The constantly increasing patronage accorded the hospital as the medical and surgical center of a large part of New Hampshire and Vermont has rendered necessary the addition of a new wing to the present building. This wing, now in process of construction, will increase the capacity to a total of sixty-nine beds. The additional floor space will accommodate a maternity ward, a children's ward, and a small additional male ward, together with a few private rooms.

During the year 1911–1912 there were 1039 admissions, of which 210 were medical and 829 surgical cases. Nine hundred eighty-seven surgical operations were performed, while the medical cases included diseases of the respiratory, circulatory, digestive, and urinary systems, central and peripheral nervous system, and other classes of disease. In the out-patient department there were treated 213 cases of disease of the ear, nose, and throat; 37 ophthalmological cases; and 405 minor surgical cases, X-ray exposures, etc.

Because the classes are small each student has the opportunity before graduating of receiving personal instruction at the bedside, of assisting in operations, and of giving ether. They are divided into small groups which follow up the cases and do the dressings under direction. They are taught pyhsical diagnosis at the bedside and in the examining room. They make blood and urine tests of patients who are under their daily observation. The diagnosis, prognosis, and after history of these cases are discussed freely and in detail with the classes by the instructors.

The appointment of a recent graduate as house officer is made every six months, and the position affords full and valuable experience. The

terms of service begin on April first and October first and continue one year.

The College maintains a small but well-equipped Isolation Hospital. It affords a valuable opportunity for studying and following the contagious diseases. One or two advanced students serve each year as internes.

REQUIREMENTS FOR ADMISSION

The minimum requirement for admission to the Dartmouth Medical School is represented by two years of College work. The required subjects consist of: at least one year of Inorganic Chemistry, two years of Biology, one year of Physics, and one year each of any two of the languages, Latin, French, and German. Applicants must demonstrate their ability to translate at sight easy Latin prose.

Students in Dartmouth College, who are candidates for the B.S. degree, may register in the Medical School at the beginning of Junior year by presenting the above requirements, together with additional courses sufficient to make a total of 62 semester hours. In this combined course a candidate will receive the degree of Bachelor of Science at the end of the fourth year and the degree of Doctor of Medicine at the end of the sixth year. Students taking this combined six-year academic and medical course are allowed to waive the Minor requirement in Group I and to make a split Minor in Group III.

Students in Dartmouth College who are candidates for the A.B. degree may register in the Medical School at the beginning of Senior year by presenting the above requirements, together with additional courses sufficient to make a total of 92 semester hours. They may thus secure the degree of Bachelor of Arts at the end of the fourth year and the degree of Doctor of Medicine at the end of the seventh year. Students taking this seven-year combined course should have completed their Minors in Groups I and III before registering in the Medical School.

Students in the College, who wish to register in the Medical School in either of these combined courses, must secure from the President of the College a certificate approving such transfer.

A candidate desiring admission to the Medical School from another college must present to the Secretary of the Medical Faculty an official detailed statement of the courses pursued at that institution together with a letter of honorable dismissal. No one will be accepted who has not credit for the required subjects named above.

The following schedule shows the courses taken in the combined six-year academic and medical course:

FRESHMAN YEAR IN DARTMOUTH COLLEGE: (32 hours)

English 1 and 2.
Mathematics 1 and 4 (or Physics 1 and 2, if Advanced Mathematics has been presented for admission).
Biology 1 and 2.
Physical Education.

and any two of:
Latin, six hours.
French, six hours
German, six hours.

SOPHOMORE YEAR IN DARTMOUTH COLLEGE: (30 hours)

Physics 3 and 4, or 1a and 2a.
Chemistry 3 and 4.
Botany 3 and Zoölogy 4.
Psychology 1 and 2.

with History 1 and 2, or
Economics 1 and 2, or
Political Science.

JUNIOR YEAR IN DARTMOUTH COLLEGE AND FIRST YEAR IN MEDICINE:

Chemistry 5 and 8b. (6 hrs.)
Zoölogy 9 and 10. (6 hrs.)
Physiology 1 and 2.(6 hrs.)

Anatomy 1 and 2. (12 hrs.)
Histology 1 and 2. (6 hrs.)

SENIOR YEAR IN DARTMOUTH COLLEGE AND SECOND YEAR IN MEDICINE:

Chemistry (Physiol. and Med.).(6 hrs.)
Physiology 3 and 4. (6 hrs.)
Bacteriology 1 and 2. (6 hrs.)

Anatomy 3 and 4. (12 hrs.)
*Pathology. (6 hrs.)
*Materia Medica. (3 hrs.)

THIRD YEAR IN MEDICINE:

Regional Anatomy, Minor Surgery, Special Pathology and Pathological Diagnosis, Obstetrics, Medicine, Therapeutics, Physical and Differential Diagnosis, Gynecology, Psychiatry, Pediatrics, Medical Jurisprudence, Ophthalmology, Dermatology, Laryngology, Otology, Hygiene.

FOURTH YEAR IN MEDICINE:

Therapeutics, Surgery, Medicine, Obstetrics, Gynecology, Psychiatry, Medical Jurisprudence, Hygiene, Ophthalmology, Laryngology, Otology, Dermatology, Pediatrics, Orthopedics.

*These courses do not count for an academic degree.

ADVANCED STANDING

Applicants for advanced standing must satisfy the requirements for admission; must bring official evidence of time spent in medical schools with equivalent entrance requirements; and must either present official certificates of standing in the courses to be accepted or pass examinations in the subjects of the medical curriculum in which the class which they wish to enter has been examined.

DETAILED STATEMENT OF ENTRANCE REQUIREMENTS

The following extracts from the college catalogue are descriptive of those courses in the academic department of this college mentioned above as covering the required field of preparation for entrance into the medical school. *Equivalent courses pursued at other colleges of approved standing will be accepted upon proper certification.* Courses in Group III establishing a foundation for the minor in this group necessary as a part of the six years combined course are also described. (Election from these courses begins during the second preparatory year.)

No description is given of the courses in Latin and the modern languages. These departments offer a wide range of electives. No beginners' course is offered by the college in Latin.

ENGLISH

1 and 2.

First and Second Semesters, 3 hrs.

An introduction to the study of Rhetoric, with the preparation and criticism of themes, and constant reference to examples of correct and incorrect style; weekly lectures in English Literature, with monthly reports upon required readings. (Canby's *English Composition*, Nutter, Hersey, and Greenough's *Specimens of Prose Composition*, Woolley's *Handbook of Composition.*)

BIOLOGY

ZOÖLOGY AND BOTANY

1. *Elementary Botany.*

First Semester, 3 hrs.

An introductory course giving a general survey of the plant kingdom. The lectures treat of the physiology, morphology and reproduction of plants, and of the relation of fungi and bacteria to decomposition, fermentation and disease. Representatives of the principal groups of plants and some of their more important structures are studied in the laboratory.

2. *Elementary Zoölogy.*

Second Semester, 3 hrs.

An introduction to the study of animal life. The structure of a series of typical animals is studied in the laboratory. The lectures supplement the laboratory work on animal forms and relationships and treat of the physiology, habits, life histories, and economic importance of animals. (Hegner's *College Zoölogy.*)

3. *Algae and Fungi.*

First Semester, 3 hrs.

A course on the structure, activities, and development of the principal groups of algae and fungi. Fungous diseases of trees and cultivated plants are considered, also the relation of bacteria to many of the processes of nature and to various arts and industries. Instruction is given in the making of artificial cultures of fungi.

4. *Comparative Anatomy of Vertebrates.*

Second Semester, 3 hrs.

The outlines of the classification of vertebrates, the homologies, and the histological structure of vertebrate organs, the theories of the structure of the vertebrate head, and of the derivation of the Chordata will be discussed. The object of the course is to illustrate the evolution of the vertebrate type of animals from the lowest fishes and related forms up to man and to discuss some of the conditions that are coincident with, or determine, the progressive modification of various vertebrate organs. (Wiedersheim's *Comparative Anatomy of Vertebrates*, Gray's *Anatomy.*)

MATHEMATICS

1. *Algebra and Plane Trignometry.*

First Semester, 3 hrs.

The first half of the semester is devoted to a brief review of fundamental principles, a more advanced presentation of linear and quadratic equations including graphs and determinants, variation, progressions, and logarithms. The second half of the semester is devoted to a short course in plane trigonometry. (Rietz and Crathorne's *College Algebra* and Hun and MacInnes' *Trigonometry.*)

4. *Analytic Geometry.*

Second Semester, 3 hrs.

A course presenting the elements of analytic plane geometry. Cartesian and polar coördinates, the straight line, circle, and conic sections. Tangents, normals, etc., are postponed to the courses in calculus. (Riggs' *Analytic Geometry.*)

PHYSICS

1 and 2. *General Physics.*

First and Second Semesters, 3 hrs.

A study of the phenomena and simpler laws of Mechanics, Sound, Heat, Electricity, Magnetism, and Light. Instruction is given by lectures with an ample number of illustrative experiments, by recitations and frequent examinations upon the lectures and text-book assignments.

3. *Experimental Physics.*

First Semester, 3 hrs.

A course in the theory and use of instruments of precision and in the experimental verification and application of physical laws. In particular, the micrometer and vernier calipers, the spherometer, and the micrometer eyepiece are used for measuring length; the seconds clock, stop-watch, chronograph, and tuning-fork for measuring time; spring, pan, and analytical balances, and inertia methods for measuring mass; the laws of the pendulum and of falling bodies are used to determine "g"; the laws of forces, moments, moments of inertia, centers of mass, Hooke's, Boyle's, and Charles's laws are verified; the densities of solids and liquids are measured in a number of ways; the laws of vibrating strings, the measurement of the period, wave-length, and velocity of propagation of wave disturbances in different media are determined.

While care in manipulation and accuracy of observation are required of the student, it is also essential that he understand thoroughly the principles involved in the experiments. Oral reviews and tests will be held at convenient intervals to determine to what extent these principles have become a part of the student's knowledge.

A laboratory manual (Gilbert) will be used by the student; other texts will be consulted.

4. *Experimental Physics (continued).*

Second Semester, 3 hrs.

A continuation of Course 3, extended into the study and experimental verification of the general laws of Heat, Electricity, Magnetism, and Light.

In Heat, experiments are performed in the study of thermometers, in calorimetry, in the expansion, due to heat, of solids, liquids, and gases, and in the measurement of specific and latent heats.

In Electricity and Magnetism, the exercises include the mapping of magnetic fields and lines of current-flow, the measurement of the strength of magnetic fields, electrostatic capacities, the resistance of wires, batteries, and galvanometers, the electromotive force of batteries, galvanometer factors, the electrochemical equivalent of hydrogen, the mechanical equivalent of heat, the efficiency of a motor and of a generator, and the use of the D'Arsonval, Thomson, and tangent galvanometers, and of ammeters and voltmeters.

In Light, the laws of photometers and mirrors, the measurement of the focal length and magnifying power of lenses and combinations of lenses, the index of refraction of glass, the spectra of a number of substances, the wave lengths of light, and the simple laws of polarization and double refraction are determined or verified.

1a and 2a. *Elementary Physics.*

First and Second Semesters, 3 hrs.

This introductory course is designed to meet the need of those students who, not having had secondary school Physics and not wishing to take Courses 1, 2, 3, 4, desire to acquaint themselves with the main principles of Physics and with laboratory methods in an exact science. Students who have received credit for entrance Physics will not be given College credit for this course. The requirement of one year of Physics for the B.S. degree may be met by this course, but students who intend to take Physics 3 and 4 must take 1 and 2.

Instruction will be given by lectures, recitations, and laboratory exercises.

CHEMISTRY

3. *Elementary Inorganic Chemistry.*

First Semester, 3 hrs.

This course reviews rapidly the groundwork preparatory to the study of the more difficult compounds of the non-metallic elements,

and continues the study of these elements by lectures and recitations. The laboratory work is Qualitative Analysis. It divides the time about equally between one hour recitations and two hour laboratory exercises. Open only to students who have presented one unit of Chemistry for entrance.

4. *Continuation of Course 3.*

Second Semester, 3 hrs.

The study of the metals and their compounds, and of the more complex problems of Qualitative Analysis. Practice in Arithmetical calculations. Open to those who have passed Chemistry 3.

PSYCHOLOGY

1. *Psychology: General Introduction.*

First Semester, 3 hrs.

Designed to develop introspective power in the student and to give him a systematic knowledge of the structure and the functions of the mind. This course is fundamental for students of Philosophy, Psychology and Education, and important for students of the Social Sciences and of Medicine. Text-book, recitations, demonstrations and elementary experiments.

2. *Psychology: General Introduction and Practical Applications.*

Second Semester, 3 hrs.

This course completes the general survey begun in the first semester, and also indicates the applications of psychology to certain fields of practical activity, such as business, medicine and law. Prerequisite, Psychology 1.

PHYSICAL EDUCATION

1 and 2. *Physical Education.*

First and Second Semesters, 1 hr.

A course of lectures on physical education, combined with practical work in the gymnasium, for the Freshmen class. The lectures will cover the gross human anatomy, physiology of muscular exercises, personal hygiene, dietetics, etc.; in general, sanitary and moral prophylaxis. The lectures will be given in the first semester; the work in the Gymnasium occurs three times per week from Thanksgiving to the Easter recess.

HISTORY

1 and 2. *Mediæval and Modern European History.*

First and Second Semesters, 3 hrs.

Courses numbered 1 and 2 are treated as a continous year's course in European History from 375 to 1878 A. D. A detailed outline of the lectures, the map and written work, and the recitations on lectures, text-books, and collateral reading will be found in Foster and Fay's *Syllabus of European History*, 375–1878 A. D. (Third Edition). In addition to the recitations the work will be tested by conferences with the instructors and by short written quizzes at the lecture or recitation. A minimum amount of collateral reading is required of all, but it is hoped that the student's interest will lead him into independent reading beyond any requirements. Text-books, lectures, recitations, and readings.

ECONOMICS

1 and 2. *Elementary Economics.*

First and Second Semesters, 3 hrs.

In these two courses the attempt is made to give the student the currently accepted scientific analysis of modern industrial society. They seek to accomplish a threefold purpose: to teach fundamental principles in such a way that they may be applied to the duties of enlightened citizenship; to open up the general field of Economics in the way most helpful for further more detailed and extensive study in the same field; and to offer to those intending to adopt business as a profession such general rules and principles as are contributed to business by the science of Economics.

While the courses oncern cthemselves primarily with economic theory,—with the most general principles of consumption, production, exchange, and distribution,—the theory itself is developed from and illustrated by a study of actual economic processes and conditions. Thus due attention is paid to the problems of money and banking, the tariff, monopoly, labor, etc., in such a general way that later intensive study of these problems may be based upon the foundations thus laid. Text-books, lectures, and discussions. (Ely and Wicker's *Elementary Principles of Economics* and Taussig's *Principles of Economics.*)

POLITICAL SCIENCE

1 and 2. *American Government.*

First and Second Semesters, 3 hrs.

These two courses form a continuous year's course in the study of American Political Institutions and include (a) an introduction to Political Science, describing its nature, relation to other social sciences, and the appropriate method for the study of its phenomena; (b) a brief historical survey of the origin and development of government, both local and general, in England and the United States; (c) a detailed study of the organization and actual working of local, state, and federal governments as they now exist in the United States, and their relation to each other and to the individual; (d) a brief survey of the history of political parties in the United States, with an examination of their present organization, methods, machinery and proposals for their more effective legal control. The purpose of this course is to acquaint students with some of the leading principles of Political Science, and to prepare them by a study of the nature and tendencies of popular government for the intelligent discharge of the duties of citizenship. Lectures and recitations, with collateral readings, and reports.

COURSE OF STUDY

The One Hundred and Sixteenth Annual Course opened on Tuesday, the sixth day of August, 1912.

For the fourth-year class the session which began on August sixth will continue to April twenty-fifth, 1913. Third year courses will end on April eleventh, 1913. For the first and second-year classes, the session which began on September nineteenth, 1912, will continue nine months to June nineteenth, 1913.

The teaching is by lectures, recitations, laboratory work, and clinics. Students of the third and fourth years are kept in close touch with hospital work and have daily bedside instruction.

For the first and second-year classes the major part of the student's time is spent in the laboratories of the several departments, but this practical work is supplemented by lectures and quizzes and by constant recitation work.

For the third and fourth-year classes the course is so arranged that instruction in the special departments may be given by non-resident members of the teaching staff. During the course in each of the specialties there is provided a large amount of interesting clinical material which may be used to supplement and illustrate the didactic teaching. In the special subjects two examinations are held, one for the third-year class and a final examination for the fourth-year class. There is free access to the clinical subjects by the fourth-year men, who are required to take case histories, conduct special physical examinations, and in many cases, to perform such minor operations as tonsillotomies, etc. The period from August sixth to October fourth is occupied wholly by the work under non-resident teachers. From October sixth to April twenty-second, the morning is occupied by recitation work in the fundamental courses in general medicine and surgery while the afternoon is devoted for the most part to clinics and to work in the clinical laboratory and in the wards. During this period there is also afternoon work in the specialties until these courses are completed. Members of the fourth-year class are required throughout the year to take histories in the wards and to follow and report upon assigned patients.

SCHEDULE

First Year—First Semester

Histology 1. Monday, Wednesday, Friday, 8–10 A. M.

Zoölogy 9 (Embryology). Tuesday, Thursday, Saturday, 8–10 A.M.

Anatomy 1. Recitations, Tuesday, Thursday, Saturday, 10–11 A. M. Demonstrations and dissections: for first and third periods of six weeks, Tuesday and Thursday, 1–2 P. M.; for second period of six weeks, Tuesday and Thursday, 1–4 P. M.

Physiology 1. Monday, Wednesday, Friday, 11–12 A. M.

Chemistry 5. Monday, Wednesday, Friday, 1–3 P. M.

First Year—Second Semester

Histology 2. Monday, Wednesday, Friday, 8–10 A. M.

Zoölogy 10. Tuesday, Thursday, Saturday, 8–10 A. M.

Anatomy 2. Recitations, Tuesday, Thursday, Saturday, 10–11 A. M. Demonstrations and dissection: for first and third periods of six weeks, Tuesday and Thursday, 1–4 P. M.; for second period of six weeks, Tuesday and Thursday, 1–2 P. M.

Physiology 2. Monday, Wednesday, Friday, 11–12 A. M.

Chemistry 8b. Two hour period in laboratory, four afternoons each week. Thursday lecture or recitation, 11–12 A. M.

Second Year—First Semester

Physiology 3. Monday, Wednesday, Friday, 8–10 A. M.

Bacteriology 1. Tuesday, Thursday, Saturday, 8–10 A. M.

Anatomy 3. Recitations, Monday, Wednesday, Friday, 10–11 A. M. Demonstrations and dissection, alternate periods of six weeks; demonstrations, Monday, Wednesday, Friday, 1–2 P. M., dissection, 1–4 P. M.

Pathology. Tuesday, Thursday, Saturday, 10–12 A. M.

Medical Chemistry. Tuesday, Thursday, 1–3 P. M. Tuesday, Lecture or recitation, 3–4 P. M.

Second Year—Second Semester

Physiology 4. Monday, Wednesday, Friday, 8–10 A. M.

Bacteriology 2. Tuesday, Thursday, Saturday, 8–10 A. M. for first ten weeks.

Hematology. Tuesday, Thursday, Saturday, 8–10 A. M., for four weeks.

Urinalysis. Tuesday, Thursday, Saturday, 8–10 A. M., for four weeks.

Anatomy 4. Recitations, Monday, Wednesday, Friday, 10–11 A. M. Demonstrations and dissection, alternate periods of six weeks; demonstrations Monday, Wednesday, Friday, 2–3 P. M.; dissection Monday, Wednesday, Friday, 2–5 P. M.

Pathology. Tuesday, Thursday, Saturday, 10–12 A. M.

Medical Chemistry. Tuesday, Thursday, 1–3 P. M.; Tuesday, 3–4 P. M.

Materia Medica. Monday, Wednesday, Friday, 1–2 P. M.

Third Year—October 2 to April 4

Physical Diagnosis. Monday, Tuesday, Wednesday, Friday, Saturday, 8–9 A. M.

Anatomy 5. Tuesday, Thursday, Saturday, 10–11 A. M.

Medicine. Monday, Wednesday, Friday, 10–11 A. M.; Tuesday, Saturday, 9–10 A. M.; Thursday, 8–9 A. M.

Obstetrics. Monday, Wednesday, 9–10 A. M.

Minor Surgery. Tuesday, Thursday, Saturday, 11–12 A. M.

Pathology. Tuesday, Thursday, 1–3 P. M.

Gynecology. Thursday, 9–10 A. M.

Diseases of Nervous System. Replaces Medicine for last five weeks.

Fractures. Friday 9–10 A. M.

Medical Clinic. Monday, Wednesday, Friday, 11–12 A. M.

Ward work or special clinics. Monday, Friday, 1–4 P. M.

Clinic in Otolaryngology or Ophthalmology. Wednesday, 2–4 P. M.

Third and Fourth Year—Lecture Courses

Surgery. August 6–September 14, 9–10, and 11–12 each day.
Clinic. Tuesday, Thursday, 2.30–5.00 P. M.

Therapeutics. August 6–September 14, 8–9, and 10–11 each day.

Otolaryngology. August 19–August 29, 1.30–2.30 each day.
Clinic. Monday, Wednesday, Friday, 2.30–5.00 P. M.

Psychiatry. August 6–August 16, 1.30–2.30 each day.
Clinics by appointment.

Medicine. August 26–September 14. 8–9, or 9–10 A. M. and 1.30–2.30 P. M. each day.

Clinic. Monday, Wednesday, Friday, 2.30–4.30 P. M.

Dermatology. September 16–September 28, 9–10, and 1.30–2.30 each day.

Clinic. Monday, Wednesday, Friday, 2.30–4.30 P. M.

Gynecology. September 16–September 28, 8–9, and 11–12 each day.

Clinic. Tuesday, Thursday, 3.30–5.30 P. M.

Ophthalmology. October 1–October 12, 9–10 each day.

Clinic. Monday, Wednesday, Friday, 2.30–5.00 P. M.

Medical Jurisprudence. September 23–October 4, 1.30–2.30, or 2.30–3.30 P. M. each day.

Obstetrics. October 1–October 12, 8–9, and 2.30–3.30 each day.

Clinics by appointment.

Orthopedics. December 11–December 20, 1.30–2.30 each day.

Clinic. Monday, Wednesday, Friday, 2.30–5.00 P. M.

Hygiene. February 5–February 20, 1913, 1.30–2.30 or 2.30–3.30 each day.

Fourth Year—October 2 to April 24

Pediatrics. Tuesday, Saturday, 8–9 A. M., Thursday, 1.30–2.30 P. M.

Surgery. Tuesday, Saturday, 1.30–2.30 P. M.

Medicine. Monday, Wednesday, Friday, 10–11 A. M.; Tuesday, Saturday, 9–10 A. M.; Thursday, 8–9 A. M.

Obstetrics. Monday, Wednesday, 9–10 A. M.

Diseases of Nervous System. Replaces Medicine for last five weeks.

Gynecology. Thursday, 9–10 A. M.

Fractures. Friday, 9–10 A. M.

Gynecological Clinic. Thursday, 10–12 A. M.

Surgical Clinic. Tuesday, Saturday, 10–12 A. M.

Medical Clinic. Monday, Wednesday, Friday, 11–12 A. M.

Clinic in Otolaryngology or Ophthalmology. Wednesday, 2–4 P. M.

Ward work or special clinic. Monday, Tuesday, Thursday, Friday, 2.30–5 P. M.

COURSES OF INSTRUCTION

EMBRYOLOGY AND COMPARATIVE ANATOMY

PROFESSORS PATTEN AND GEROULD, AND DR. GRIGGS

First Year

Vertebrate Embryology. A study of the Embryology of the frog, the chick, and a mammal. (Bailey and Miller's *Text Book of Embryology*, Minot's *Human Embryology*, Hertwig's *Embryology of Vertebrates*, Heisler's *Embryology*). First semester, fifty-four two-hour exercises.

Professor Patten or Dr. Griggs.

Comparative Anatomy and Physiology of the Nervous System and Sense Organs.

A course of lectures and laboratory work illustrating the structure and evolution of the nervous system and sense organs, with special reference to their physiology. (Whitaker's *Anatomy of the Brain and Special Cord*). Second semester, fifty-four exercises.

Professor Gerould.

ANATOMY

PROFESSOR LORD, DR. PERCY BARTLETT

First Year

1 and 2. (a) Demonstrations and recitations on the bones, joints, blood-vessels, and nerves. Bones for temporary use are loaned to each student by the department; dissected specimens of the soft parts are used for demonstration in the class room.

(b) A preliminary course of lectures and recitations on the viscera, preparatory to Anatomy 3 and 4.

(c) Dissection of a lateral half of the body, as studied in (a).

(a) and (c) are so arranged that one third of the year is devoted to each of the three parts of the body; each third is so divided that the first portion is occupied in preparation for, and the second in the dissection, of a part, the student demonstrating each step of his dissection to the instructor. 1 occupies the first semester, and 2 the second.

Second Year

3 and 4. (a) Demonstrations and recitations on the viscera in detail. A continuation of 1 and 2, (b). Wet preparations and dissections are used in the class room by the instructor, and in the study room by the student.

(b) Demonstrations and recitations on the central nervous system, using wet specimens, cut sections, and dissections as in (a).

(c) Demonstrations and dissections on the cadaver before the class, emphasizing special regions, as the internal ear, the pterygoid, axillary, and inguinal regions, the location and proper dissection of the viscera, etc.

(d) Dissection of a lateral half of the body, reviewing the work of the previous dissection, laying emphasis on certain parts, as outlined in (c).

(c) and (d) alternate as do 1 and 2, (a) and (c). Professor Lord.

Third Year

5. Demonstrations and recitations in Surgical Anatomy.

Dr. Bartlett.

PHYSIOLOGY

PROFESSOR C. C. STEWART

First Year

1. A course of lectures, with demonstrations and occasional quizzes on the physiology of muscle and nerve, circulation, respiration, and animal heat. First semester, fifty-four exercises.

2. A continuation of Course 1, on the physiology of digestion, metabolism, secretion, and excretion, the nervous system, and the special senses. Second semester, fifty-four exercises.

Second Year

3. The work of the second year will consist of laboratory exercises with demonstrations, recitations, and occasional lectures on the physiology of muscle and nerve, blood, circulation, respiration, and animal

heat. A short experimental course on the physiological action of drugs is included. First semester, fifty-four exercises of two hours each.

4. continuation of Course 3, taking up in the same way the physiology of digestion, metabolism, secretion and excretion, the nervous system, and the special senses.

Third Year

5 and 6. An advanced course of lectures continuing throughout the year. Subject for 1912–1913: "Nutrition and Metabolism." The course is open as an elective to third or fourth year students.

The equipment of the laboratory provides a satisfactory set of apparatus for each two students. The set includes a clockwork kymograph, inductorium, moist chamber, recording and stimulating apparatus, tambours, circulation model, and many minor pieces; while for the work in chemical physiology a complete outfit of glassware, apparatus, and chemicals is provided. In addition to this the laboratory contains apparatus for demonstrations and for individual work or original investigation. Both the students' sets and the equipment of the general laboratory are being added to from time to time as the needs of the work direct.

CHEMISTRY

Professors E. J. Bartlett and Bolser

First Year

5. Organic Chemistry. The chemistry of the carbon compounds. Two thirds of the exercises are recitations and lectures and one third are laboratory exercises. The object of the course is to ground the student in fundamental theory and to acquaint him with laboratory method. Professor Bolser.

8b. Quantitative Analysis. A course in the laboratory arranged from standard text and reference books. Elementary gravimetric and volumetric methods. This course requires as a minimum the equivalent of seventy-two exercises of two hours each.

Professor Bartlett.

Second Year

Physiological and Medical Chemistry. A course with laboratory, lecture, and recitation work giving special attention to the carbohydrates and albumens, to Toxicology, the Chemistry of the body, and the applications of Chemistry to Medicine. First and second semesters.
Professor Bartlett.

HISTOLOGY, BACTERIOLOGY, AND PATHOLOGY

PROFESSORS KINGSFORD AND GRAHAM

First Year

1. Histology. Laboratory work with occasional lectures and quizzes. The study of the microscopic anatomy of the animal cell, of the fundamental mammalian tissues, and of the organs; together with practical work by the individual student in the methods for preparing and staining sections. Each student will receive a complete collection of slides for preservation. First semester, fifty-four laboratory periods with quiz hours as they can be arranged. Professor Graham.

2. Histology. A continuation of Course 1, completing the study of the great organ systems, including the central nervous system and the special sense organs. Second semester, fifty-four laboratory periods, with quiz hours as they can be arranged. Professor Graham.

Second Year

3. Bacteriology. Lectures and laboratory work with occasional quizzes. Each student will prepare the various culture media, and will carry out practical work in the methods of air, water, and milk examinations, and the isolation and identification of the more common pathogenic organisms, demonstrating the culture reactions of such organisms before the class. Special stress will be laid upon the acquirement of the technique involved in the laboratory diagnosis of the bacterial diseases and upon the study of Immunity. Eight hours in the laboratory each week during the first semester and for the fist ten weeks of the second semester, with lecture hours as they can be arranged.
Professor Graham.

4. Pathology. Six hours each week of laboratory work throughout the year. Lectures, three times each week, illustrated by demonstrations of gross lesions, two hours' recitation. The laboratory work is devoted to the study of the pathological histology of inflammation, the infectious diseases, tumors, etc. The sections may be prepared and retained by the student. PROFESSOR KINGSFORD.

5. Hæmatology. Two lectures and one recitation, with two hours of laboratory work each week. A course in the examination, preparation, and staining of blood specimens, with special reference to clinical diagnosis. Both normal and pathological blood specimens are available for examination and study. Four weeks during the second semester. PROFESSOR KINGSFORD.

6. Urinary Examinations. Four hours of laboratory work and three hours of lectures and recitations each week from April first to June eighteenth. This course deals with the examination of normal and pathological urines, with special relation to the full study of urinary sediments. An abundance of material is available at all times.
PROFESSOR KINGSFORD.

THIRD YEAR

7. Special Pathology and Laboratory Diagnosis. The course will embrace a series of lectures upon special topics in pathology, together with recitations and laboratory work. The laboratory work will include the gross examination and description of tumors with subsequent microscopic study of preparations made from them, and a review of the second year work in Hematology and Urinalysis. Material for the work to be taken largely from hospital patients seen by the student in the wards. PROFESSOR KINGSFORD.

As the Medical School affords accommodation to the State Laboratory of Bacteriology, the supply of pathological and bacteriological material accessible throughout the year is unusually large. Each student has an opportunity to act as voluntary assistant for a period of four weeks, and thus may obtain special training in bacteriological and pathological technique and in general laboratory methods.

MATERIA MEDICA AND THERAPEUTICS

PROFESSOR BALLIET AND DR. P. BARTLETT

Second Year

1. Materia Medica and Pharmacy. A recitation course of three hours each week during the second semester, and in addition to the recitations, a short course in practical pharmacy demonstrating the pharmaceutical process, the pharmacopoeial preparations, and the compounding of prescriptions. Practical work in pharmacodynamics is included in the work of the second year course in Physiology.

Dr. Bartlett.

Third and Fourth Years

2. Therapeutics. A course of sixty lectures with frequent quizzes and illustrations by the study of clinical cases at the hospital.

Professor Balliet.

OBSTETRICS

PROFESSOR POLAK AND DR. P. BARTLETT

Third and Fourth Years

1. A course of fifteen lectures illustrated by diagrams and the use of manikins. Professor Polak.

2. Recitations with section work upon manikins by the student, two hours each week. Dr. Bartlett.

Preparation is thus secured for a course in the Out-patient department of a Lying-In Hospital which the student is advised to take during the vacation at the end of the third year. Evidence of attendance upon eight cases of confinement is required of candidates for the degree.

3. Maternity cases are received at the Hospital, and when possible they serve to illustrate to the students in small sections the teaching and methods of obstetrics.

GYNECOLOGY

PROFESSOR GOFFE AND DR. GILE

Third and Fourth Years

1. A course of twenty-four lectures illustrated by diagrams, supplemented by clinical teaching at the Hospital. The students make examinations of the cases presented and follow the operations and after-treatment. Professor Goffe.

2. Recitations once a week supplemented by further clinical instruction at the Hospital through the year. Clinical material is abundant. Dr. Gile.

SURGERY

PROFESSORS DE NANCRÈDE AND GILE, AND DOCTOR P. BARTLETT

Third Year

1. A course in Minor Surgery given partly in the recitation room and partly at the Hospital with additional practical work upon the cadaver. Demonstrations and quizzes. Three hours each week.
Dr. P. Bartlett.

Third and Fourth Years

2. A course of seventy-two lectures supplemented by many clinical lectures and operations at the Hospital. The student is given cases to examine and study, and makes his report before the class.
Professor de Nancrède.

Fourth Year

3. A course of recitations with further clinical lectures and study of individual cases by the student at the Hospital. Two hours each week. Professor Gile.

MEDICINE

PROFESSORS WHITE AND FROST AND DOCTOR GILE

Third Year

1. Physical Diagnosis. Study of methods of examination and physical diagnosis, with enough of pathology to make the variations in the physical signs intelligible. About one-third of the course is given to lectures, one-third to recitations, and one-third to clinics. Five hours each week. Dr. Gile.

2. Medicine. Lectures and recitations six hours each week.
Professor Frost.

Third and Fourth Years

3. Medicine. A course of fifty lectures, twenty-five in each of the two years. Bedside demonstrations and discussions will be used to illustrate the didactic teaching, and special emphasis will be laid upon the procedures of the clinical laboratory as aids in diagnosis and treatment. Professor White.

Fourth Year

4. Medicine. Lectures and recitations with clinical examinations at the Hospital through the year. Six hours each week, with one or two hours additional each week of clinical examination at the Hospital.
Professor Frost.

5. Diseases of children. Two recitations and one hour of clinical work each week. Professor Frost.

6. Diseases of the Nervous System. Two recitations and one hour of clinical work each week. Professor Frost.

7. Medicine. Ward work. Several hours of ward work each afternoon from about October 2 to about April 24. The work includes the taking of case histories, and the actual performance of the diagnostic tests of the clinical laboratory.
Professors Kingsford, Frost and Gile.

OPHTHALMOLOGY

PROFESSOR QUACKENBOSS, DR. CARLETON

1. A course of twelve didactic lectures in the third and fourth years with many clinical lectures and operations before the class. An excellent opportunity is afforded each student to study these cases.
PROFESSOR QUACKENBOSS.

2. Clinical Ophthalmology. A weekly clinic throughout the year excepting during the continuance of the above lecture course.
DR. CARLETON.

LARYNGOLOGY AND OTOLOGY

PROFESSOR LELAND AND DR. CARLETON

1. A course of ten didactic lectures with clinical lectures and many operations before the class. Laryngology and Otology are considered in alternate years. Opportunity to study and follow the treatment of individual cases. PROFESSOR LELAND.

2. Clinical Otolaryngology. A weekly clinic throughout the year excepting during the continuance of the above course. DR. CARLETON.

MEDICAL JURISPRUDENCE

PROFESSOR BUTLER

Separate courses of twelve didactic lectures each in the third and fourth years, expounding the relations of Law to Medicine in the various departments of municipal government and medical practice.

PSYCHIATRY

PROFESSOR COWLES

A course of twenty-four didactic lectures in two successive years, covering the following topics:

1. The principles of mental pathology and the nature of mental symptoms.

2. Mental physiology. Imperative ideas and psychological automatism.

3. Laws of the nervous and mental mechanism; the organic sensations in mental pathology; and the psychology and pathology of the emotions; the mental symptoms of nervous exhaustion.

4. Forms of mental diseases.

DERMATOLOGY

PROFESSOR TOWLE

A course of about thirty-six didactic lectures, eighteen in each of two successive years. It is intended to make this course a practical one with special attention to the most common diseases of the skin. The lectures will be illustrated by photographs and supplemented by clinical demonstration.

ORTHOPEDIC SURGERY

PROFESSOR BRACKETT

Courses of twelve lectures each in the third and fourth years. Didactic consideration of the diseases and deformities of bones, joints, and muscles, illustrated by photographs, radiograms, and models, and by the study of clinical cases at the hospital.

HYGIENE

DOCTOR KINGSFORD

Courses of fifteen didactic lectures each in the third and fourth years giving instruction in the principles of hygiene and sanitation as applied to daily life and to the practice of medicine and surgery. The course includes the discussion of problems in ventilation and disinfection of buildings, care of water supply, food supplies, plumbing, and sewage disposal; and covers the general field of municipal and school hygiene.

The hygiene and sanitation of the College and of the Hanover water and milk supply, and the college isolation hospital, are under the care of Dr. Kingsford as Medical Director, who thus is enabled to make use in the course of unusual opportunities for demonstrating general principles and modern methods in actual operation.

TEXT-BOOKS

Anatomy—Cunningham, Spalteholz, Piersol, Treves, Quain.
Bacteriology—Jordan, Hiss & Zinsser, McFarland.
Chemistry—Remsen, Holland.
Dermatology — Stelwagon, Pusey, Jackson, Van Harlingen.
Dictionary — Gould, Dunglison, Dorland.
Diseases of Children — Holt.
Diseases of Nervous System — Osler, Church and Peterson.
Embryology — Bailey and Miller.
Gynecology — Bovèe, Crossen, Montgomery, Dudley.
Hæmatology — Cabot, Ewing.
Histology — Bailey, Stöhr, Piersol, 8th Ed., Ferguson.
Hygiene — Bergey, Harrington.
Medical Jurisprudence — Witthaus and Becker, Draper.
Obstetrics — Williams, Hirst, Webster, Edgar.
Otolaryngology — Kyle, Diseases of Nose and Throat; Williams, Diseases of Upper Respiratory Tract; Hovell, Diseases of Ear; Lake, Diseases of Ear; Richards, Nose and Throat; Saunders, Medical Hand Atlases: Gründewald, Diseases of the Larynx; Brühl and Politzer, Diseases of Ear.
Ophthalmology — May, Haab, Fuchs, De Schweinitz.
Orthopedic Surgery — Bradford and Lovett, Rotch.
Pathology — Delafield and Prudden, Ziegler.
Physical Diagnosis — Cabot, Anders, Butler's Diagnosis.
Physiology — Brubaker, Howell, Landois, Schäfer.
Practice of Medicine — Osler, Anders, Tyson.
Surgery — de Nancrède, Da Costa, Park, Warren.
Therapeutics — Wood, Hare, Cushing and Wilcox on Materia Medica and Pharmacy, Cushny.
Phychiatry — Kraepelin, Clinical Psychiatry, White, Outlines of Psychiatry, De Fursac, Manuel of Psychiatry, Sherrington, Integrative Action of the Nervous System.

EXAMINATIONS AND GRADUATION

During the first year of the study of medicine in this school, examinations will be required in Embryology, Anatomy and Physiology of the Nervous System, Physiology, Histology (including a practical examination in the laboratory), Organic Chemistry, and Anatomy (Osteology and Arthrology). In the second year examinations will be required in Physiological Chemistry, Pathology (including a practical slide examination), Physiology, Hæmatology, Urinalysis, Bacteriology, Anatomy, and Materia Medica. In the third year examinations will be required in Regional Anatomy, Physical Diagnosis, Special Pathology and Pathological Diagnosis, Therapeutics, Minor Surgery, Laryngology, (or Otology), Obstetrics, Medicine, Medical Jurisprudence, Dermatology, and a practical examination in Anatomy involving actual dissection of the cadaver. In the fourth year final examinations will be held in Therapeutics, Surgery, Medicine, Obstetrics, Gynecology, Medical Jurisprudence, Psychiatry, Dermatology, Hygiene, Otology (or Laryngology) Pediatrics, Ophthalmology, and Orthopedics.

Every candidate for the degree of Doctor of Medicine must

1. Be more than twenty-one years of age;
2. Be of good moral character;
3. Have studied medicine not less than four years of thirty-six weeks each in four different calendar years, of which the last year must have been taken at this school;
4. Have dissected all parts of the cadaver;
5. Present evidence of attendance upon eight cases of confinement.

No candidate shall receive his diploma nor be accredited with the degree until he has passed all courses in which he is subject to examination.

EXPENSES

Tuition is to be paid in two equal instalments on October first and March first. Laboratory fees must be paid to the Treasurer at the beginning of each Semester.

*Tuition — For each of the four courses	$125.00
Chemical and ordinary breakage, First year	8.00
Second year	5.00
Histology. Material, First year	6.00
Biology and Embryology. Material, First year	6.00
Bacteriology. Material, Second year	3.00
Pathology. Material, Second year	5.00
Physiology. Material, Second year, First semester	5.00
Second year, Second semester	4.00
Anatomy. Material	at cost
Room Rent	40.00 to 100.00
Board, per week	3.50 to 6.00
Text-books	10.00 to 20.00
Washing	10.00 to 30.00

Those desiring further information may address George S. Graham, M. D., secretary, Hanover, N. H.

* Beginning with 1913–1914 the charge for tuition will be $140

STUDENTS

GRADUATES OF 1912 — HOSPITAL APPOINTMENTS

Clarke, George Joshua.
Daly, Edmund Joseph. . . . . *Worcester City Hospital* (*Mass.*).
Dunbar, Clarence Eugene, A.B. . . *Massachusetts State Hospital* (*Tewksbury*).
Dunham, Harry Bartlett. . . . . *Brockton Hospital* (*Mass.*).
Lewis, Frank Edward, A.B. . . . . *Boston City Hospital.*
Vivian, William James. . . . . *N. H. State Hospital* (*Concord*), April–October, 1912.
Mary Hitchcock Memorial Hospital — October, 1912–October, 1913.
Wesley, John Willard. . . . . *Boston City Hospital.*
Woodman, Arthur Beattie. . . . . *Rhode Island General Hospital* (*Providence*).

FOURTH YEAR. CLASS OF 1913

Allen, George Edgar, A.B.	*Bradford, Mass.*	9 Cottage St.
Barker, James Creighton, Jr.	*New Milford, Conn.*	9 W. South St.
Blood, Robert Oscar	*White River Junct., Vt.*	9 College St.
Cleasby, Howard Wilfred	*Littleton, N. H.*	Bridgman Block
Emery, William Edward	*Surry, Me.*	23 N. Main St.
Ferenczi, Louis John	*Bayonne, N. J.*	24 School St.
Holzer, William Francis	*Arlington, N. J.*	41 S. Main St.
Hunt, Wesley Marshall, B.S.	*Hanover, N. H.*	Davison Block
Powers, James Joseph	*Manchester, N. H.*	Hospital
Robbins, Edmunds Henry	*Manchester, N. H.*	8 Lebanon St.
Stokes, Leroy Tyler	*Rochester, N. H.*	24 School St.

THIRD YEAR. CLASS OF 1914

Burnham, Arthur Washington, B.S.	*Norwich, Vt.*	9 W. South St.
Carroll, William Edward, A.B.	*Passaic, N. J.*	Σ A E House
Clute, Howard Merrill, B.S.	*Florence, Mass.*	9 College St.
Gaylord, James Frederick, A.B.	*South Hadley, Mass.*	9 W. South St.
Norris, Rolf Clarke, B.S.	*Methuen, Mass.*	Carter Block

SECOND YEAR. CLASS OF 1915

Chisholm, Lawrence Chesley	*Salem, Mass.*	15 So. Fayerweather
Taylor, Clifton Clark, A.B.	*Bridgeport, Conn.*	8 Hubbard

FIRST YEAR. CLASS OF 1916

Arndt, William George	*Mansfield, Mass.*	56–57 Wheeler
Cushman, Frank Holmes	*Claremont, N. H.*	57 New Hampshire
Fellows, Albert Whittier	*Dorchester, Mass.*	20 Crosby
French, Harry Tapley Johnson	*Haverhill, Mass.*	29 Reed
Haywood, Henry, Jr.	*Hanover, N. H.*	19 Sanborn
Hutchinson, Rollo Wilson	*Milford, N. H.*	15 No. Fayerweather
Randall, John Albert	*Myricka, Mass.*	13 E. Wheelock St.
Schulte, Raymond Morales	*Dollar Bay, Mich.*	44 New Hampshire
Spillane, Bernard	*North Easton, Mass*	9 W. South St.

ALUMNI ASSOCIATION FOUNDED IN 1886

President, WILLIAM A. MEGRATH, M.D., '86.
Secretary, HOWARD N. KINGSFORD, M.D., '98, Hanover, N. H.

Annual reunion at Concord, N. H., at the time of the meeting of the New Hampshire Medical Society in the latter part of May.

UNIVERSITY OF ILLINOIS-URBANA
3 0112 111546088